

## **Appendix 2**

**Table 1**  
**Summary of Economic Benefit Results**

Claim Number	Claim Description	Starting Item Number	Ending Item Number	Value of On-Time Case at PPD*	Value of Delay Case at PPD*	Economic Benefit at PPD*
1	Mine Site: Violations of Total Dissolved Solids Permit Limits	1 86	48 89	510,297	465,485	44,812
2	Mine Site: Violations of Cyanide Permit Limits	N/A	N/A	N/A	N/A	N/A
3	Mine Site: Whole Effluent Toxicity ("WET") Testing Permit Violations	49	49	22,487	-	22,487
4	Mine Site: Cadmium Permit Limit Violations	50	50	78	-	78
5	Mine Site: Unpermitted Discharges to the Tundra	51	53	8,706	2,219	6,488
6	Mine Site: Self-Monitoring and Reporting Violations	54	57	56,701	45,072	11,629
7	Port Site: Unpermitted Discharges	58	58	1,098	-	1,098
8	Port Site: Total Suspended Solids Permit Limit Violations	59	67	109,877	74,235	35,642
9	Port Site: Self-Monitoring and Reporting Violations	68	71	42,073	39,851	2,222
10	Mine Site: Violations of Consent Order	72	85	18,225	17,739	486
Total				769,542	644,600	124,942

\*PPD - Penalty Payment Date is assumed to be August 1, 2008.

Table 1.A  
Cost Data

Claim Number	Item Number	Description	Avoided (A), Capital (C), Delayed (D), or O&M (O&M) Cost	Non- Compliance Date	Compliance Date	Pretax Cost of Item	Cost Estimate Date
1	Mine Site: Violations of Total Dissolved Solids Permit Limits						
	1	FY 1998	D	6/30/1993	6/30/1998	19,700.00	6/30/1998
	2	FY 1999	D	6/30/1994	6/30/1999	26,800.00	6/30/1999
	3	FY 2000	D	6/30/1995	6/30/2000	21,500.00	6/30/2000
	4	FY 2001	D	6/30/1996	6/30/2001	27,500.00	6/30/2001
	5	FY 2002	D	6/30/1997	6/30/2002	41,500.00	6/30/2002
	6	FY 2003	D	6/30/1998	6/30/2003	27,700.00	6/30/2003
	7	Legal Fees - FY 1996	D	6/30/1991	6/30/1996	1,272.00	6/30/1996
	8	Legal Fees - FY 1997	D	6/30/1992	6/30/1997	810.00	6/30/1997
	9	Legal Fees - FY 1998	D	6/30/1993	6/30/1998	5,448.00	6/30/1998
	10	Legal Fees - FY 1999	D	6/30/1994	6/30/1999	21,208.00	6/30/1999
	11	Legal Fees - FY 2000	D	6/30/1995	6/30/2000	19,871.20	6/30/2000
	12	Legal Fees - FY 2001	D	6/30/1996	6/30/2001	3,427.00	6/30/2001
	13	Legal Fees - FY 2002	D	6/30/1997	6/30/2002	1,911.25	6/30/2002
	14	Legal Fees - FY 2003	D	6/30/1998	6/30/2003	7,229.75	6/30/2003
	15	ENSR Review on TDS Toxicity (1)	D	11/28/1996	11/28/2001	1,096.00	11/28/2001
	16	ENSR Review on TDS Toxicity (2)	D	12/6/1996	8/22/2003	2,780.10	12/6/2001
	17	ENSR Review on TDS Toxicity (3)	D	12/6/1996	8/22/2003	3,154.70	12/6/2001
	18	ENSR "Mock Effluent" Study	D	1/8/1996	1/8/2001	2,350.00	1/8/2001
	19	ENSR Miscellaneous	D	12/6/1996	8/22/2003	3,100.00	12/6/2001
	20	Shipment of Gill Net	D	8/31/1997	8/31/2002	21.25	8/31/2002
	21	University of Alaska Fairbanks Grant	D	1/14/1998	1/14/2003	4,305.17	1/14/2003
	22	University of Alaska Fairbanks Effort	D	2/6/1998	2/6/2003	8,994.49	2/6/2003
	23	EVS Environmental Consultants re: TDS (1)	D	3/31/1994	3/31/1999	490.71	3/31/1999
	24	EVS Environmental Consultants re: TDS (2)	D	12/3/1993	12/3/1998	1,553.39	12/3/1998
	25	EVS Environmental Consultants re: Fish Fertilization (1)	D	6/4/1993	6/4/1998	752.36	6/4/1998
	26	EVS Environmental Consultants re: Fish Fertilization (2)	D	3/12/1993	3/12/1998	10,523.52	3/12/1998
	27	EVS Environmental Consultants re: TDS (3)	D	6/3/1994	6/3/1999	1,256.71	6/3/1999
	28	EVS Environmental Consultants re: TDS (4)	D	2/17/1994	2/17/1999	4,852.29	2/17/1999
	29	EVS Environmental Consultants re: TDS (5)	D	11/19/1993	11/19/1998	5,026.24	11/19/1998
	30	EVS Environmental Consultants re: TDS (6)	D	11/19/1993	11/19/1998	2,196.51	11/19/1998
	31	EVS Environmental Consultants re: TDS (7)	D	9/24/1993	9/24/1998	965.04	9/24/1998
	32	EVS Environmental Consultants re: TDS (8)	D	9/24/1993	9/24/1998	6,299.89	9/24/1998
	33	EVS Environmental Consultants re: Fish Fertilization (3)	D	4/9/1993	4/9/1998	3,808.50	4/9/1998
	34	EVS Environmental Consultants re: Fish Fertilization (4)	D	4/9/1993	4/9/1998	325.02	4/9/1998
	35	EVS Environmental Consultants re: Fish Fertilization (5)	D	3/12/1993	3/12/1998	11,562.09	3/12/1998
	36	Monitoring & Flow Controls re: TDS Compliance with COBC (1)	D	8/28/1997	3/11/1999	122.08	3/11/1999
	37	Monitoring & Flow Controls re: TDS Compliance with COBC (2)	D	8/28/1997	3/25/1999	2,030.82	3/25/1999

Claim Number	Item Number	Description	Avoided (A), Capital (C), Delayed (D), or O&M (O&M) Cost	Non-Compliance Date	Compliance Date	Prelax Cost of Item	Cost Estimate Date
3	38	Monitoring & Flow Controls re: TDS Compliance with COBC (3)	D	8/28/1997	3/1/1999	182.90	3/1/1999
	39	Micro Specialties re: TDS Monitoring & Flow Controls (1)	D	8/28/1997	9/13/1998	2,775.00	9/13/1998
	40	Dryden Instrumentation re: TDS Monitoring & Flow Control (1)	D	8/28/1997	4/14/1999	766.33	4/14/1999
	41	Dryden Instrumentation re: TDS Monitoring & Flow Control (2)	D	8/28/1997	4/14/1999	3,150.00	4/14/1999
	42	Dryden Instrumentation re: TDS Monitoring & Flow Control (3)	D	8/28/1997	4/22/1999	1,350.30	4/22/1999
	43	Micro Specialties re: TDS Monitoring & Flow Controls (2)	D	8/28/1997	5/21/1999	3,225.00	5/21/1999
	44	Dryden Instrumentation re: TDS Monitoring & Flow Control (4)	D	8/28/1997	6/17/1999	5,185.92	6/17/1999
	45	Dryden Instrumentation re: TDS Monitoring & Flow Control (5)	D	8/28/1997	7/2/1999	1,090.00	7/2/1999
	46	Micro Specialties re: TDS Monitoring & Flow Controls (3)	D	8/28/1997	6/24/1999	775.00	6/24/1999
	47	Micro Specialties re: TDS Monitoring & Flow Controls (4)	D	8/28/1997	6/24/1999	3,740.00	6/24/1999
4	48	Micro Specialties re: TDS Monitoring & Flow Controls (5)	D	8/28/1997	5/31/1999	1,554.00	5/31/1999
	86	EcoTox Work Plan & Budget	D	11/13/1995	8/5/2004	48,994.00	8/5/2004
	87	EcoTox Services Prior to April 2005 Fish Fertilization Study	D	11/11/1996	8/4/2005	82,373.00	8/4/2005
	88	EcoTox TDS Fish Fertilization Study	D	1/6/1997	9/29/2005	33,923.00	9/29/2005
	89	Reimbursement to the State (re: Site Specific TDS Limits)	D	3/13/1997	12/31/2001	197,000.00	12/31/2001
	49	Mine Site: Whole Effluent Toxicity ("WET") Testing Permit Violations	A	8/1/1999	N/A	5,400.00	8/10/2001
	50	Mine Site: Cadmium Permit Limit Violations	A	10/1/2000	N/A	114.40	10/1/2000
	51	Mine Site: Unpermitted Discharges to the Tundra	D	5/19/2001	3/19/2003	2,468.92	3/19/2003
	52	Raise Containment Dyke	D	5/19/2001	4/25/2004	915.71	4/25/2004
	53	Install 12" Line	A	5/19/2001	N/A	9,750.00	6/5/2003
5	54	Pump Rental	O&M	5/15/1998	11/30/2000	12,606.78	11/30/2000
	55	Mine Site: Self-Monitoring and Reporting Violations	D	5/15/1998	3/30/2000	42,022.60	3/30/2000
	56	Envista One-Time Expense	D	5/15/1998	7/31/2000	12,110.77	7/31/2000
	57	Envista One-Time Expense	D	5/15/1998	7/31/2000	10,480.16	7/31/2000
	58	Envista O&M	O&M	5/15/1998	11/30/2000	12,606.78	11/30/2000
7	59	Port Site: Unpermitted Discharges	A	5/9/2002	N/A	1,829.00	10/22/2004
	60	Heat Trace	A	5/9/2002	N/A	1,829.00	10/22/2004
8	59	Port Site: Total Suspended Solids Permit Limit Violations	D	4/1/2002	3/13/2003	4,565.99	3/13/2003
	60	Change Multi-Media	C	4/1/2002	3/20/2003	24,220.29	3/20/2003

Claim Number	Item Number	Description	Avoided (A), Capital (C), Delayed (D), or O&M (O&M) Cost	Non-Compliance Date	Compliance Date	Pretax Cost of Item	Cost Estimate Date
9	61	Remove Bag Filter at Mill	D	4/1/2002	4/25/2003	313.76	4/25/2003
	62	Install Used Bag Filter	D	4/1/2002	5/2/2003	1,581.34	5/2/2003
	63	Install New Bag Filter and Build Building	C	4/1/2002	10/16/2003	31,949.74	10/16/2003
	64	Filters and Filter Media	D	4/1/2002	6/2/2004	43,286.81	6/2/2004
	65	PN&D Invoices	D	4/1/2002	3/19/2003	9,774.10	3/19/2003
	66	AMEC Invoices	D	4/1/2002	3/19/2003	12,045.78	3/19/2003
	67	AMEC Invoice	D	4/1/2002	5/23/2003	5,145.80	5/23/2003
9	Port Site: Self-Monitoring and Reporting Violations						
	68	Perform Additional BOD and Fecal Coliform Sampling (1)	A	4/1/1999	N/A	87.00	4/30/1999
	69	Perform Additional BOD and Fecal Coliform Sampling (2)	A	5/1/2000	N/A	68.10	3/23/2000
	70	Perform Additional BOD and Fecal Coliform Sampling (3)	A	2/1/2001	N/A	46.00	1/15/2001
	71	Faulty pH Meter	A	5/1/2000	N/A	2,700.00	6/1/1999
10	Mine Site: Violations of Consent Order						
	72	Direct Charge Supplies	D	7/1/2000	6/1/2001	7,107.12	6/1/2001
	73	Warehouse Issues	D	7/1/2000	6/1/2001	435.50	5/25/2001
	74	Micro Specialties	D	7/1/2000	6/1/2001	150.00	8/29/2000
	75	Micro Specialties	D	7/1/2000	6/1/2001	1,000.00	4/13/2000
	76	Micro Specialties	D	7/1/2000	6/1/2001	6,892.00	4/24/2000
	77	Micro Specialties	D	7/1/2000	6/1/2001	1,560.00	4/24/2000
	78	Micro Specialties	D	7/1/2000	6/1/2001	175.00	4/24/2000
	79	Micro Specialties	D	7/1/2000	6/1/2001	2,720.00	5/30/2000
	80	Micro Specialties	D	7/1/2000	6/1/2001	552.00	8/28/2000
	81	Micro Specialties	D	7/1/2000	6/1/2001	1,560.00	9/20/2000
	82	Dryden Instrumentation	D	7/1/2000	6/1/2001	1,689.00	3/26/2001
	83	Dryden Instrumentation	D	7/1/2000	6/1/2001	485.00	4/27/2001
	84	Dryden Instrumentation	D	7/1/2000	6/1/2001	1,625.00	5/25/2001
	85	Dryden Instrumentation	D	7/1/2000	6/1/2001	420.00	5/29/2001

Table 1.B  
Economic Benefit Calculations

Penalty Payment Date:		8/1/2008								
Tax Rate		41.1% *								
Item	One-time Expense(A), Capital (C),Delayed	Non- Compliance Date	Compliance Date	Pretax Cost of Item	Cost Estimate Date	Inflation Index at Cost Estimate Date	Inflation Index at Non-Compliance Date	Inflation Index at Compliance Date	Pretax Cost at Non-Compliance Date	Tax Rate at Non- Compliance Date
1	D	6/30/1993	6/30/1998	19,700	6/30/1998	388.00	358.70	388.00	18,212	41.10%
2	D	6/30/1994	6/30/1999	26,800	6/30/1999	390.05	363.62	390.05	24,984	41.10%
3	D	6/30/1995	6/30/2000	21,500	6/30/2000	392.35	374.54	392.35	20,524	41.10%
4	D	6/30/1996	6/30/2001	27,500	6/30/2001	394.20	381.40	394.20	26,607	41.10%
5	D	6/30/1997	6/30/2002	41,500	6/30/2002	394.95	384.09	394.95	40,359	41.10%
6	D	6/30/1998	6/30/2003	27,700	6/30/2003	398.79	388.00	398.79	26,951	41.10%
7	D	6/30/1991	6/30/1996	1,272	6/30/1996	381.40	359.45	381.40	1,199	41.10%
8	D	6/30/1992	6/30/1997	810	6/30/1997	384.09	359.75	384.09	759	41.10%
9	D	6/30/1993	6/30/1998	5,448	6/30/1998	388.00	358.70	388.00	5,037	41.10%
10	D	6/30/1994	6/30/1999	21,208	6/30/1999	390.05	363.62	390.05	19,771	41.10%
11	D	6/30/1995	6/30/2000	19,871	6/30/2000	392.35	374.54	392.35	18,970	41.10%
12	D	6/30/1996	6/30/2001	3,427	6/30/2001	394.20	381.40	394.20	3,316	41.10%
13	D	6/30/1997	6/30/2002	1,911	6/30/2002	394.95	384.09	394.95	1,859	41.10%
14	D	6/30/1998	6/30/2003	7,230	6/30/2003	398.79	388.00	398.79	7,034	41.10%
15	D	11/28/1996	11/28/2001	1,096	11/28/2001	394.28	381.65	394.28	1,061	41.10%
16	D	12/6/1996	8/22/2003	2,780	12/6/2001	394.30	381.70	399.86	2,691	41.10%
17	D	12/6/1996	8/22/2003	3,155	12/6/2001	394.30	381.70	399.86	3,054	41.10%
18	D	1/8/1996	1/8/2001	2,350	1/8/2001	394.12	381.15	394.12	2,273	41.10%
19	D	12/6/1996	8/22/2003	3,100	12/6/2001	394.30	381.70	399.86	3,001	41.10%
20	D	8/31/1997	8/31/2002	21	8/31/2002	395.17	384.89	395.17	21	41.10%
21	D	1/14/1998	1/14/2003	4,305	1/14/2003	396.13	386.75	396.13	4,203	41.10%
22	D	2/6/1998	2/6/2003	8,994	2/6/2003	396.66	387.00	396.66	8,775	41.10%
23	D	3/31/1994	3/31/1999	491	3/31/1999	389.77	361.40	389.77	455	41.10%
24	D	12/3/1993	12/3/1998	1,553	12/3/1998	389.50	359.20	389.50	1,433	41.10%
25	D	6/4/1993	6/4/1998	752	6/4/1998	388.00	358.70	388.00	696	41.10%
26	D	3/12/1993	3/12/1998	10,524	3/12/1998	387.25	358.45	387.25	9,741	41.10%
27	D	6/3/1994	6/3/1999	1,257	6/3/1999	390.05	363.62	390.05	1,172	41.10%
28	D	2/17/1994	2/17/1999	4,852	2/17/1999	389.68	360.67	389.68	4,491	41.10%
29	D	11/19/1993	11/19/1998	5,026	11/19/1998	389.25	359.12	389.25	4,637	41.10%
30	D	11/19/1993	11/19/1998	2,197	11/19/1998	389.25	359.12	389.25	2,026	41.10%
31	D	9/24/1993	9/24/1998	965	9/24/1998	388.75	358.95	388.75	891	41.10%
32	D	9/24/1993	9/24/1998	6,300	9/24/1998	388.75	358.95	388.75	5,817	41.10%
33	D	4/9/1993	4/9/1998	3,809	4/9/1998	387.50	358.53	387.50	3,524	41.10%
34	D	4/9/1993	4/9/1998	325	4/9/1998	387.50	358.53	387.50	301	41.10%
35	D	3/12/1993	3/12/1998	11,562	3/12/1998	387.25	358.45	387.25	10,702	41.10%
36	D	8/28/1997	3/11/1999	122	3/11/1999	389.77	384.89	389.77	121	41.10%
37	D	8/28/1997	3/25/1999	2,031	3/25/1999	389.77	384.89	389.77	2,005	41.10%
38	D	8/28/1997	3/1/1999	183	3/1/1999	389.77	384.89	389.77	181	41.10%
39	D	8/28/1997	9/13/1998	2,775	9/13/1998	388.75	384.89	388.75	2,747	41.10%
40	D	8/28/1997	4/14/1999	766	4/14/1999	389.87	384.89	389.87	757	41.10%
41	D	8/28/1997	4/14/1999	3,150	4/14/1999	389.87	384.89	389.87	3,110	41.10%
42	D	8/28/1997	4/22/1999	1,350	4/22/1999	389.87	384.89	389.87	1,333	41.10%
43	D	8/28/1997	5/21/1999	3,225	5/21/1999	389.96	384.89	389.96	3,183	41.10%
44	D	8/28/1997	6/17/1999	5,186	6/17/1999	390.05	384.89	390.05	5,117	41.10%
45	D	8/28/1997	7/2/1999	1,090	7/2/1999	390.14	384.89	390.14	1,075	41.10%
46	D	8/28/1997	6/24/1999	775	6/24/1999	390.05	384.89	390.05	765	41.10%
47	D	8/28/1997	6/24/1999	3,740	6/24/1999	390.05	384.89	390.05	3,691	41.10%
48	D	8/28/1997	5/31/1999	1,554	5/31/1999	389.96	384.89	389.96	1,534	41.10%
49	A	8/28/1997	5/31/1999	1,554	5/31/1999	389.96				
50	A	10/1/2000	N/A	114	10/1/2000	393.51		#N/A	114	41.10%
51	D	5/19/2001	3/19/2003	2,469	3/19/2003	397.19	394.18	397.19	2,450	41.10%
52	D	5/19/2001	4/25/2004	916	4/25/2004	414.98	394.18	414.98	870	41.10%
53	A	5/19/2001	N/A	9,750	6/5/2003	398.79	394.18	#N/A	9,637	41.10%
54	D	5/15/1998	3/30/2000	42,023	3/30/2000	391.47	387.75	391.47	41,623	41.10%
55	D	5/15/1998	7/31/2000	12,111	7/31/2000	392.64	387.75	392.64	11,980	41.10%
56	D	5/15/1998	7/31/2000	10,480	7/31/2000	392.64	387.75	392.64	10,350	41.10%
57	O&M	5/15/1998	11/30/2000	12,607	11/30/2000	393.81	387.75	393.81	12,413	41.10%
58	A	5/9/2002	N/A	1,829	10/22/2004	435.23	394.84	#N/A	1,659	41.10%
59	D	4/1/2002	3/13/2003	4,566	3/13/2003	397.19	394.73	397.19	4,538	41.10%
60	C	4/1/2002	3/20/2003	24,220	3/20/2003	397.19	394.73	397.19	24,070	41.10%

Item	After-Tax Cost at Non- Compliance Date	Interest Forward Factor from Non- Compliance Date	Value of On- Time Case at PPD	Cost at Compliance Date	Tax Rate at Compliance Date	After-Tax Cost at Compliance Date	Interest Forward Factor from Compliance Date	Value of Delay Case at PPD	Economic Benefit at PPD
1	10,727	1.475	15,819	19,700	41.10%	11,603	1.257	14,591	1,229
2	14,716	1.442	21,227	26,800	41.10%	15,785	1.220	19,263	1,963
3	12,089	1.392	16,832	21,500	41.10%	12,664	1.178	14,922	1,911
4	15,672	1.345	21,082	27,500	41.10%	16,198	1.139	18,442	2,641
5	23,772	1.301	30,917	41,500	41.10%	24,444	1.123	27,439	3,478
6	15,874	1.257	19,961	27,700	41.10%	16,316	1.113	18,159	1,802
7	706	1.550	1,095	1,272	41.10%	749	1.345	1,008	87
8	447	1.505	672	810	41.10%	477	1.301	621	52
9	2,967	1.475	4,375	5,448	41.10%	3,209	1.257	4,035	340
10	11,645	1.442	16,797	21,208	41.10%	12,492	1.220	15,244	1,554
11	11,173	1.392	15,557	19,871	41.10%	11,704	1.178	13,791	1,766
12	1,953	1.345	2,627	3,427	41.10%	2,019	1.139	2,298	329
13	1,095	1.301	1,424	1,911	41.10%	1,126	1.123	1,264	160
14	4,143	1.257	5,210	7,230	41.10%	4,258	1.113	4,740	470
15	625	1.326	829	1,096	41.10%	646	1.130	729	99
16	1,585	1.323	2,097	2,819	41.10%	1,661	1.112	1,846	250
17	1,799	1.323	2,379	3,199	41.10%	1,884	1.112	2,095	284
18	1,339	1.364	1,826	2,350	41.10%	1,384	1.151	1,594	232
19	1,768	1.323	2,338	3,144	41.10%	1,852	1.112	2,059	279
20	12	1.293	16	21	41.10%	13	1.121	14	2
21	2,476	1.275	3,157	4,305	41.10%	2,536	1.116	2,831	326
22	5,169	1.272	6,572	8,994	41.10%	5,298	1.116	5,910	662
23	268	1.452	389	491	41.10%	289	1.229	355	34
24	844	1.460	1,232	1,553	41.10%	915	1.239	1,133	99
25	410	1.475	604	752	41.10%	443	1.257	557	47
26	5,737	1.482	8,503	10,524	41.10%	6,198	1.268	7,859	644
27	690	1.442	995	1,257	41.10%	740	1.220	903	92
28	2,645	1.455	3,848	4,852	41.10%	2,858	1.232	3,522	326
29	2,731	1.462	3,994	5,026	41.10%	2,960	1.242	3,676	319
30	1,194	1.462	1,746	2,197	41.10%	1,294	1.242	1,606	139
31	525	1.467	770	965	41.10%	568	1.247	709	61
32	3,426	1.467	5,028	6,300	41.10%	3,711	1.247	4,628	399
33	2,076	1.480	3,071	3,809	41.10%	2,243	1.264	2,836	235
34	177	1.480	262	325	41.10%	191	1.264	242	20
35	6,304	1.482	9,342	11,562	41.10%	6,810	1.268	8,635	707
36	71	1.293	92	122	41.10%	72	1.229	88	3
37	1,181	1.293	1,528	2,031	41.10%	1,196	1.229	1,471	57
38	106	1.293	138	183	41.10%	108	1.229	132	5
39	1,618	1.293	2,093	2,775	41.10%	1,634	1.247	2,039	54
40	446	1.293	576	766	41.10%	451	1.227	554	23
41	1,832	1.293	2,369	3,150	41.10%	1,855	1.227	2,276	93
42	785	1.293	1,015	1,350	41.10%	795	1.227	975	40
43	1,875	1.293	2,425	3,225	41.10%	1,900	1.223	2,324	101
44	3,014	1.293	3,898	5,186	41.10%	3,055	1.220	3,728	170
45	633	1.293	819	1,090	41.10%	642	1.217	781	38
46	450	1.293	583	775	41.10%	456	1.220	557	25
47	2,174	1.293	2,811	3,740	41.10%	2,203	1.220	2,688	123
48	903	1.293	1,168	1,554	41.10%	915	1.223	1,120	48
49			22,487						22,487
50	67	1.163	78	N/A	41.10%	-	#N/A	-	78
51	1,443	1.141	1,646	2,469	41.10%	1,454	1.115	1,621	25
52	512	1.141	584	916	41.10%	539	1.107	597	(13)
53	5,676	1.141	6,475	N/A	41.10%	-	#N/A	-	6,475
54	24,516	1.261	30,913	42,023	41.10%	24,751	1.190	29,446	1,467
55	7,044	1.261	8,883	12,111	41.10%	7,133	1.174	8,377	505
56	6,096	1.261	7,687	10,480	41.10%	6,173	1.174	7,249	437
57	7,311	1.261	9,219	12,607	41.10%	7,425	1.158	-	9,219
58	977	1.124	1,098	N/A	41.10%	-	#N/A	-	1,098
59	2,673	1.125	3,006	4,566	41.10%	2,689	1.115	2,998	8
60	14,177	1.125	15,945	24,220	41.10%	14,266	1.115	-	15,945

Item	One-time Expense(A), Delayed Capital (C),Delayed	Non- Compliance Date	Compliance Date	Pretax Cost of Item	Cost Estimate Date	Inflation Index at Cost Estimate Date	Inflation Index at Non-Compliance Date	Inflation Index at Compliance Date	Pretax Cost at Non-Compliance Date	Tax Rate at Non- Compliance Date
61	D	4/1/2002	4/25/2003	314	4/25/2003	397.72	394.73	397.72	311	41.10%
62	D	4/1/2002	5/2/2003	1,581	5/2/2003	398.25	394.73	398.25	1,567	41.10%
63	C	4/1/2002	10/16/2003	31,950	10/16/2003	400.93	394.73	400.93	31,456	41.10%
64	D	4/1/2002	6/2/2004	43,287	6/2/2004	421.62	394.73	421.62	40,526	41.10%
65	D	4/1/2002	3/19/2003	9,774	3/19/2003					
66	D	4/1/2002	3/19/2003	12,046	3/19/2003	397.19	394.73	397.19	11,971	41.10%
67	D	4/1/2002	5/23/2003	5,146	5/23/2003	398.25	394.73	398.25	5,100	41.10%
68	A	4/1/1999	N/A	87	4/30/1999					
69	A	5/1/2000	N/A	68	3/23/2000	391.47	392.05	#N/A	68	41.10%
70	A	2/1/2001	N/A	46	1/15/2001	394.12	394.13	#N/A	46	41.10%
71	A	5/1/2000	N/A	2,700	6/1/1999	390.05	392.05	#N/A	2,714	41.10%
72	D	7/1/2000	6/11/2001	7,107	6/11/2001	394.20	392.64	394.20	7,079	41.10%
73	D	7/1/2000	6/11/2001	436	5/25/2001	394.18	392.64	394.20	434	41.10%
74	D	7/1/2000	6/11/2001	150	8/29/2000	392.93	392.64	394.20	150	41.10%
75	D	7/1/2000	6/11/2001	1,000	4/13/2000	391.76	392.64	394.20	1,002	41.10%
76	D	7/1/2000	6/11/2001	6,892	4/24/2000	391.76	392.64	394.20	6,907	41.10%
77	D	7/1/2000	6/11/2001	1,560	4/24/2000	391.76	392.64	394.20	1,563	41.10%
78	D	7/1/2000	6/11/2001	175	4/24/2000	391.76	392.64	394.20	175	41.10%
79	D	7/1/2000	6/11/2001	2,720	5/30/2000	392.05	392.64	394.20	2,724	41.10%
80	D	7/1/2000	6/11/2001	552	8/28/2000	392.93	392.64	394.20	552	41.10%
81	D	7/1/2000	6/11/2001	1,560	9/20/2000	393.22	392.64	394.20	1,558	41.10%
82	D	7/1/2000	6/11/2001	1,689	3/26/2001	394.15	392.64	394.20	1,683	41.10%
83	D	7/1/2000	6/11/2001	485	4/27/2001	394.17	392.64	394.20	483	41.10%
84	D	7/1/2000	6/11/2001	1,625	5/25/2001	394.18	392.64	394.20	1,619	41.10%
85	D	7/1/2000	6/11/2001	420	5/29/2001	394.18	392.64	394.20	418	41.10%
86	D	11/13/1995	8/5/2004	48,994	8/5/2004	428.37	380.00	428.37	43,461	41.10%
87	D	11/11/1996	8/4/2005	82,373	8/4/2005	459.37	381.65	459.37	68,437	41.10%
88	D	1/6/1997	9/29/2005	33,923	9/29/2005	461.56	382.10	461.56	28,083	41.10%
89	D	3/13/1997	12/31/2001	197,000	12/31/2001	394.30	382.89	394.30	191,302	41.10%

Avoided One-time Expense(A), Delayed Capital (C), Delayed One-time Expense(D), or O&M (O&M) Cost

\*BEN Version 4.3



Item	After-Tax Cost at Non- Compliance Date	Interest Forward Factor from Non- Compliance Date	Value of On- Time Case at PPD	Cost at Compliance Date	Tax Rate at Compliance Date	After-Tax Cost at Compliance Date	Interest Forward Factor from Compliance Date	Value of Delay Case at PPD	Economic Benefit at PPD
61	183	1.125	206	314	41.10%	185	1.114	206	0
62	923	1.125	1,038	1,581	41.10%	931	1.114	1,037	1
63	18,528	1.125	20,838	31,950	41.10%	18,818	1.111	-	20,838
64	23,870	1.125	26,846	43,287	41.10%	25,496	1.106	28,197	(1,351)
65			30,688					30,511	177
66	7,051	1.125	7,930	12,046	41.10%	7,095	1.115	7,910	20
67	3,004	1.125	3,379	5,146	41.10%	3,031	1.114	3,375	4
68			40,105					39,851	254
69	40	1.182	47	N/A	41.10%	-	#N/A	-	47
70	27	1.148	31	N/A	41.10%	-	#N/A	-	31
71	1,598	1.182	1,890	N/A	41.10%	-	#N/A	-	1,890
72	4,170	1.174	4,897	7,107	41.10%	4,186	1.139	4,766	131
73	256	1.174	300	436	41.10%	257	1.139	292	8
74	88	1.174	104	150	41.10%	89	1.139	101	3
75	590	1.174	693	1,006	41.10%	593	1.139	675	18
76	4,068	1.174	4,778	6,935	41.10%	4,085	1.139	4,651	127
77	921	1.174	1,081	1,570	41.10%	925	1.139	1,053	29
78	103	1.174	121	176	41.10%	104	1.139	118	3
79	1,604	1.174	1,884	2,735	41.10%	1,611	1.139	1,834	50
80	325	1.174	382	554	41.10%	326	1.139	371	10
81	917	1.174	1,077	1,564	41.10%	921	1.139	1,049	29
82	991	1.174	1,164	1,689	41.10%	995	1.139	1,133	31
83	285	1.174	334	485	41.10%	286	1.139	325	9
84	953	1.174	1,120	1,625	41.10%	957	1.139	1,090	30
85	246	1.174	289	420	41.10%	247	1.139	282	8
86	25,599	1.372	35,115	48,994	41.10%	28,857	1.104	31,866	3,250
87	40,309	1.326	53,466	82,373	41.10%	48,518	1.086	52,678	789
88	16,541	1.319	21,818	33,923	41.10%	19,981	1.084	21,653	166
89	112,677	1.312	147,789	197,000	41.10%	116,033	1.129	130,999	16,790

**Table 1.C**  
**Economic Benefit Calculation Related to O&M**

		Date of Cost Estimate	Inflation Index at Cost Estimate Date	
Annual O&M	12,606.78	11/30/2000	393.81	
Monthly O&M	1,050.56	11/30/2000	393.81	
	Non-Compliance Date		Compliance Date	Total
Start Date	5/15/1998	12/31/1999	11/30/2000	
Inflation Index at Start Date	387.50	390.60	393.81	
Inflation Factor	<u>0.984</u>	<u>0.992</u>	<u>1.000</u>	
Pre-Tax Monthly Cost	1,033.73	1,042.01	1,050.56	
Number of Months	<u>7.5</u>	<u>12</u>	<u>11</u>	30.5
Total Pre-Tax Cost	7,752.99	12,504.11	11,556.21	
Tax Rate	<u>41.1%</u>	<u>41.1%</u>	<u>41.1%</u>	
After-Tax Cost	4,566.51	7,364.92	6,806.61	18,738.04
PV Factor to PPD	1.261	1.201	1.158	
After-Tax Cost as of PPD	5,758.11	8,843.17	7,885.44	22,486.72

**Table 1.D**  
**Capital Cost - Summary of Benefit Calculations**

<u>Building</u>	
On-Time:	
Initial Cycle	\$ 21,544
Replacement Cycle	\$ 18,560
	<u>\$ 40,105</u>
Delay:	
Initial Cycle	\$ 22,216
Replacement Cycle	\$ 17,635
	<u>\$ 39,851</u>
Economic Benefit	\$ 254
<u>Dike in the Ditch</u>	
On-Time:	
Initial Cycle	\$ 16,486
Replacement Cycle	\$ 14,203
	<u>\$ 30,688</u>
Delay:	
Initial Cycle	\$ 16,842
Replacement Cycle	\$ 13,669
	<u>\$ 30,511</u>
Economic Benefit	\$ 177

**Table 1.D.1**  
**Construct Building**  
**On-Time Initial Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Penalty Payment Date 8/1/2008

Depreciation Schedule (7 years MACRS)	Year	1	2	3	4	5	6	7	8
		0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Marginal Tax Rate		41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
PV Factor: Converts Costs to PPD		1.117	1.110	1.100	1.077	1.043	1.013	0.979	0.918
Index at Non-Compliance Date*	394.73								
Index at Cost Estimate Date*	400.93								
Cost	(31,950)								
Cost Estimate Date	10/16/2003								
Inflation Factor From Cost Estimate Date to Non-Compliance Date	0.985								
Initial Capital Investment	(\$31,456)								
Before Tax Annual cost		0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation - MACRS 7 Year Schedule		\$ (4,495)	\$ (7,704)	\$ (5,502)	\$ (3,929)	\$ (2,809)	\$ (2,806)	\$ (2,809)	\$ (1,403)
Depreciation Expense		\$	\$ (4,537)	\$ (3,240)	\$ (2,314)	\$ (1,655)	\$ (1,653)	\$ (1,655)	\$ (826)
After tax Annual Costs									
Net After Tax Costs									
Annual Net Cash Flow		\$ 1,847	\$ 3,166	\$ 2,261	\$ 1,615	\$ 1,155	\$ 1,153	\$ 1,155	\$ 577
PV of Cash Flows as of Penalty Payment Date		\$ 2,064	\$ 3,513	\$ 2,486	\$ 1,739	\$ 1,204	\$ 1,169	\$ 1,130	\$ 529
			1.125						
Net Cash Flow as of Penalty Payment Date	\$ (21,544)								

\* Inflation index values are as of the final day of the month.

**Table 1.D.2**  
**Construct Building**  
**On-Time Replacement Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate	6.61%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</
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Marginal Tax Rate	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
PV Factor: Converts Costs to PPD	0.548	0.514	0.482	0.452	0.424	0.397
						0.373
						0.349

[illegible]

\* Inflation index values are as of the final day of the month.

**Table 1.D.3**  
**Construct Building**  
**Delay Initial Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Compliance Date 10/15/2003  
 Penalty Payment Date 8/1/2008

Depreciation Schedule (7 years MACRS)

Year	1	2	3	4	5	6	7	8
	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446

	12/31/2003	12/31/2004	12/31/2005	12/31/2006	12/31/2007	12/31/2008	12/31/2009	12/31/2010
Marginal Tax Rate	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
PV Factor: Converts Costs to PPD	1.110	1.100	1.077	1.043	1.013	0.979	0.918	0.861

Cost	(31,950)							
Cost Estimate Date	10/15/2003							
Inflation Factor From Cost Estimate Date to Non-Compliance Date	1.000							
Initial Capital Investment	(\$31,950)							
Before Tax Annual cost								
Depreciation - MACRS 7 Year Schedule	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation Expense	\$ (4,566)	\$ (7,824)	\$ (5,588)	\$ (3,991)	\$ (2,853)	\$ (2,850)	\$ (2,853)	\$ (1,425)
After tax Annual Costs	\$	\$	\$	\$	\$	\$	\$	\$
Net After Tax Costs	\$ (2,689)	\$ (4,609)	\$ (3,291)	\$ (2,350)	\$ (1,680)	\$ (1,679)	\$ (1,680)	\$ (839)
Annual Net Cash Flow	\$ (31,950)	\$ 3,216	\$ 2,297	\$ 1,640	\$ 1,173	\$ 1,171	\$ 1,173	\$ 586
PV of Cash Flows as of Penalty Payment Date	(\$35,934)	\$ 3,536	\$ 2,473	\$ 1,711	\$ 1,188	\$ 1,146	\$ 1,076	\$ 504
	1.125							
Net Cash Flow as of Penalty Payment Date	\$	\$ (22,216)						

\* Inflation index values are as of the final day of the month.

**Table 1.D.4**  
**Construct Building**  
**Delay Replacement Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

	1	2	3	4	5	6	7	8
Post-PPD Discount Rate								
Non-Compliance Date								
Compliance Date								
Penalty Payment Date								
Replacement Date								
Year	1	2	3	4	5	6	7	8
	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation Schedule (7 years MACRS)	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026

	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
Marginal Tax Rate							
PV Factor: Converts Costs to PPD	0.482	0.452	0.424	0.397	0.373	0.349	0.328
							0.307

[illegible]

~ Inflation index values are as of the final day of the month.

**Table 1.D.5**  
**Install Dike in Ditch**  
**On-Time Initial Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Penalty Payment Date 8/1/2008

Year	1	2	3	4	5	6	7	8
12/31/2002	12/31/2003	12/31/2004	12/31/2005	12/31/2006	12/31/2007	12/31/2008	12/31/2009	
Depreciation Schedule (7 years MACRS)	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Marginal Tax Rate	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
PV Factor: Converts Costs to PPD	1.117	1.110	1.100	1.077	1.043	1.013	0.979	0.918
Cost	(24,220)							
Cost Estimate Date	3/20/2003							
Inflation Factor From Cost Estimate Date to Non-Compliance Date	0.994							
Initial Capital Investment	(\$24,070)							
Before Tax Annual Cost	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation - MACRS 7 Year Schedule	\$ (3,440)	\$ (5,895)	\$ (4,210)	\$ (3,006)	\$ (2,149)	\$ (2,147)	\$ (2,149)	\$ (1,074)
Depreciation Expense								
After tax Annual Costs	\$ (2,026)	\$ (3,472)	\$ (2,480)	\$ (1,771)	\$ (1,266)	\$ (1,265)	\$ (1,266)	\$ (632)
Net After Tax Costs								
Annual Net Cash Flow	\$ 1,414	\$ 2,423	\$ 1,730	\$ 1,236	\$ 883	\$ 882	\$ 883	\$ 441
PV of Cash Flows as of Penalty Payment Date	\$ 1,579	\$ 2,688	\$ 1,903	\$ 1,331	\$ 922	\$ 894	\$ 865	\$ 405
	1.125							
Net Cash Flow as of Penalty Payment Date	\$	\$ (16,486)						

\* Inflation index values are as of the final day of the month.



**Table 1.D.6**  
**Install Dike in Ditch**  
**On-Time Replacement Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Compliance Date 3/20/2003  
 Penalty Payment Date 8/1/2008  
 Replacement Date 4/1/2017

Depreciation Schedule (7 years MACRS)

Year	1	2	3	4	5	6	7	8
	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	

Marginal Tax Rate

PV Factor: Converts Costs to PPD

41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%	41.10%
0.548	0.514	0.482	0.452	0.424	0.397	0.373	0.349	

Cost

(24,220)

Cost Estimate Date

3/20/2003

Inflation Factor From Cost Estimate Date to Non-Compliance Date

1.542

Initial Capital Investment

(\$37,341)

Before Tax Annual cost

Depreciation - MACRS 7 Year Schedule

Depreciation Expense

After tax Annual Costs

Net After Tax Costs

0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
\$ (5,336)	\$ (9,145)	\$ (6,531)	\$ (4,664)	\$ (3,335)	\$ (3,331)	\$ (3,335)	\$ (1,665)
\$ (3,143)	\$ (5,386)	\$ (3,847)	\$ (2,747)	\$ (1,964)	\$ (1,952)	\$ (1,954)	\$ (981)
Annual Net Cash Flow							
PV of Cash Flows as of Penalty Payment Date							
(\$37,341)	\$ 3,758	\$ 2,684	\$ 1,917	\$ 1,370	\$ 1,369	\$ 1,370	\$ 684
(\$21,372)	\$ 1,932	\$ 1,294	\$ 866	\$ 581	\$ 544	\$ 511	\$ 239
0.572							

Net Cash Flow as of Penalty Payment Date

\$ (14,203)

\* Inflation index values are as of the final day of the month.

**Table 1.D.7**  
**Install Dike in Ditch**  
**Delay Initial Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Compliance Date 3/20/2003  
 Penalty Payment Date 8/1/2008

Depreciation Schedule (7 years MACRS)

Year	1	2	3	4	5	6	7	8
	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446

12/31/2003 12/31/2004 12/31/2005 12/31/2006 12/31/2007 12/31/2008 12/31/2009 12/31/2010

Marginal Tax Rate

PV Factor: Converts Costs to PPD

Cost	(24,220)							
Cost Estimate Date	3/20/2003							
Inflation Factor From Cost Estimate Date to Non-Compliance Date	1.000							
Initial Capital Investment	(\$24,220)							
Before Tax Annual Cost								
Depreciation - MACRS 7 Year Schedule	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation Expense	\$ (3,461)	\$ (5,932)	\$ (4,236)	\$ (3,025)	\$ (2,163)	\$ (2,160)	\$ (2,163)	\$ (1,080)
After tax Annual Costs	\$ (2,039)	\$ (3,494)	\$ (2,495)	\$ (1,782)	\$ (1,274)	\$ (1,273)	\$ (1,274)	\$ (636)
Net After Tax Costs								
Annual Net Cash Flow	\$ 1,423	\$ 2,438	\$ 1,741	\$ 1,243	\$ 889	\$ 888	\$ 889	\$ 444
PV of Cash Flows as of Penalty Payment Date	\$ 1,578	\$ 2,681	\$ 1,875	\$ 1,297	\$ 901	\$ 869	\$ 816	\$ 382
	1.125							
Net Cash Flow as of Penalty Payment Date	\$ (16,842)							

\* Inflation index values are as of the final day of the month.

**Table 1.D.8**  
**Install Dike in Ditch**  
**Delay Replacement Investment**  
**Present Value as of the Penalty Payment Date**

Assumptions:

Post-PPD Discount Rate 6.61%  
 Non-Compliance Date 4/1/2002  
 Compliance Date 3/20/2003  
 Penalty Payment Date 8/1/2008  
 Replacement Date 3/20/2018

Depreciation Schedule (7 years MACRS)

Year	1	2	3	4	5	6	7	8
	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025

Marginal Tax Rate 41.10%  
 PV Factor: Converts Costs to PPD 0.514

Cost	(24,220)							
Cost Estimate Date	3/20/2003							
Inflation Factor From Cost Estimate Date to Non-Compliance Date	1.570							
Initial Capital Investment	(\$38,021)							
Before Tax Annual Cost								
Depreciation - MACRS 7 Year Schedule	0.1429	0.2449	0.1749	0.1249	0.0893	0.0892	0.0893	0.0446
Depreciation Expense	\$ (5,433)	\$ (9,311)	\$ (6,650)	\$ (4,749)	\$ (3,395)	\$ (3,391)	\$ (3,395)	\$ (1,696)
After tax Annual Costs	\$ (3,200)	\$ (5,484)	\$ (3,917)	\$ (2,797)	\$ (2,000)	\$ (1,998)	\$ (2,000)	\$ (999)
Net After Tax Costs								
Annual Net Cash Flow	\$ (38,021)	\$ 3,827	\$ 2,733	\$ 1,952	\$ 1,395	\$ 1,394	\$ 1,395	\$ 697
PV of Cash Flows as of Penalty Payment Date	\$ (\$20,515)	\$ 1,845	\$ 1,235	\$ 827	\$ 555	\$ 519	\$ 488	\$ 228
	0.540							
Net Cash Flow as of Penalty Payment Date	\$ (13,669)							

\* Inflation index values are as of the final day of the month.

**Table 1.E**  
**Interest Forward/Discount Rate Calculations**

Penalty Payment Date:

8/1/2008

YEAR	MONTH	Last Day in Month	Actual T-Bill Rate	Price per \$100	Percent Profit	Pre-Tax Annualized Yield + 1	Pre-Tax Annualized Yield	Federal Tax Rate	After-Tax Annualized Forward Rate	Discount/Forward Factor to PPD
1987	Jan-87	1/31/1987	5.43%	98.63	1.392%	1.057	5.70%	34%	3.76%	1.909
	Feb-87	2/28/1987	5.59%	98.59	1.433%	1.059	5.87%	34%	3.88%	1.903
	Mar-87	3/31/1987	5.59%	98.59	1.433%	1.059	5.87%	34%	3.88%	1.897
	Apr-87	4/30/1987	5.64%	98.57	1.446%	1.059	5.93%	34%	3.91%	1.891
	May-87	5/31/1987	5.66%	98.57	1.451%	1.060	5.95%	34%	3.93%	1.885
	Jun-87	6/30/1987	5.67%	98.57	1.454%	1.060	5.96%	34%	3.93%	1.879
	Jul-87	7/31/1987	5.69%	98.56	1.459%	1.060	5.98%	34%	3.95%	1.873
	Aug-87	8/31/1987	6.04%	98.47	1.550%	1.064	6.37%	34%	4.20%	1.867
	Sep-87	9/30/1987	6.40%	98.38	1.644%	1.068	6.76%	34%	4.46%	1.860
	Oct-87	10/31/1987	6.13%	98.45	1.574%	1.065	6.46%	34%	4.27%	1.853
	Nov-87	11/30/1987	5.69%	98.56	1.459%	1.060	5.98%	34%	3.95%	1.847
	Dec-87	12/31/1987	5.77%	98.54	1.480%	1.061	6.07%	34%	4.01%	1.841
1988	Jan-88	1/31/1988	5.81%	98.53	1.491%	1.061	6.11%	34%	4.04%	1.835
	Feb-88	2/29/1988	5.66%	98.57	1.451%	1.060	5.95%	34%	3.93%	1.829
	Mar-88	3/31/1988	5.70%	98.56	1.462%	1.060	5.99%	34%	3.96%	1.824
	Apr-88	4/30/1988	5.91%	98.51	1.517%	1.062	6.22%	34%	4.11%	1.817
	May-88	5/31/1988	6.26%	98.42	1.608%	1.066	6.61%	34%	4.36%	1.811
	Jun-88	6/30/1988	6.46%	98.37	1.660%	1.068	6.83%	34%	4.51%	1.804
	Jul-88	7/31/1988	6.73%	98.30	1.731%	1.071	7.12%	34%	4.70%	1.797
	Aug-88	8/31/1988	7.06%	98.22	1.817%	1.075	7.49%	34%	4.94%	1.790
	Sep-88	9/30/1988	7.24%	98.17	1.864%	1.077	7.69%	34%	5.08%	1.783
	Oct-88	10/31/1988	7.35%	98.14	1.893%	1.078	7.81%	34%	5.16%	1.775
	Nov-88	11/30/1988	7.76%	98.04	2.001%	1.083	8.27%	34%	5.46%	1.768
	Dec-88	12/31/1988	8.07%	97.96	2.082%	1.086	8.62%	34%	5.69%	1.759
1989	Jan-89	1/31/1989	8.27%	97.91	2.135%	1.088	8.84%	34%	5.84%	1.751
	Feb-89	2/28/1989	8.53%	97.84	2.204%	1.091	9.14%	34%	6.03%	1.743
	Mar-89	3/31/1989	8.82%	97.77	2.280%	1.095	9.47%	34%	6.25%	1.734
	Apr-89	4/30/1989	8.65%	97.81	2.235%	1.093	9.27%	34%	6.12%	1.725
	May-89	5/31/1989	8.43%	97.87	2.177%	1.090	9.02%	34%	5.96%	1.717
	Jun-89	6/30/1989	8.15%	97.94	2.103%	1.087	8.71%	34%	5.75%	1.709
	Jul-89	7/31/1989	7.88%	98.01	2.032%	1.084	8.40%	34%	5.55%	1.701
	Aug-89	8/31/1989	7.90%	98.00	2.038%	1.084	8.43%	34%	5.56%	1.694
	Sep-89	9/30/1989	7.75%	98.04	1.998%	1.083	8.26%	34%	5.45%	1.686
	Oct-89	10/31/1989	7.64%	98.07	1.969%	1.081	8.14%	34%	5.37%	1.679
	Nov-89	11/30/1989	7.69%	98.06	1.982%	1.082	8.19%	34%	5.41%	1.671
	Dec-89	12/31/1989	7.63%	98.07	1.967%	1.081	8.12%	34%	5.36%	1.664
1990	Jan-90	1/31/1990	7.64%	98.07	1.969%	1.081	8.14%	34%	5.37%	1.657
	Feb-90	2/28/1990	7.74%	98.04	1.996%	1.082	8.25%	34%	5.44%	1.650
	Mar-90	3/31/1990	7.90%	98.00	2.038%	1.084	8.43%	34%	5.56%	1.642
	Apr-90	4/30/1990	7.77%	98.04	2.003%	1.083	8.28%	34%	5.47%	1.635
	May-90	5/31/1990	7.74%	98.04	1.996%	1.082	8.25%	34%	5.44%	1.628
	Jun-90	6/30/1990	7.73%	98.05	1.993%	1.082	8.24%	34%	5.44%	1.621
	Jul-90	7/31/1990	7.62%	98.07	1.964%	1.081	8.11%	34%	5.35%	1.614
	Aug-90	8/31/1990	7.45%	98.12	1.919%	1.079	7.92%	34%	5.23%	1.607
	Sep-90	9/30/1990	7.36%	98.14	1.896%	1.078	7.82%	34%	5.16%	1.600
	Oct-90	10/31/1990	7.17%	98.19	1.846%	1.076	7.61%	34%	5.02%	1.593
	Nov-90	11/30/1990	7.06%	98.22	1.817%	1.075	7.49%	34%	4.94%	1.587
	Dec-90	12/31/1990	6.74%	98.30	1.733%	1.071	7.14%	34%	4.71%	1.581

1991	Jan-91	1/31/1991	6.22%	98.43	1.597%	1.066	6.56%	34%	4.33%	1.575
	Feb-91	2/28/1991	5.94%	98.50	1.524%	1.063	6.26%	34%	4.13%	1.570
	Mar-91	3/31/1991	5.91%	98.51	1.517%	1.062	6.22%	34%	4.11%	1.565
	Apr-91	4/30/1991	5.65%	98.57	1.449%	1.059	5.94%	34%	3.92%	1.560
	May-91	5/31/1991	5.46%	98.62	1.399%	1.057	5.73%	34%	3.78%	1.555
	Jun-91	6/30/1991	5.57%	98.59	1.428%	1.059	5.85%	34%	3.86%	1.550
	Jul-91	7/31/1991	5.58%	98.59	1.431%	1.059	5.86%	34%	3.87%	1.545
	Aug-91	8/31/1991	5.33%	98.65	1.366%	1.056	5.59%	34%	3.69%	1.541
	Sep-91	9/30/1991	5.22%	98.68	1.337%	1.055	5.47%	34%	3.61%	1.536
	Oct-91	10/31/1991	4.99%	98.74	1.277%	1.052	5.22%	34%	3.45%	1.532
	Nov-91	11/30/1991	4.56%	98.85	1.166%	1.048	4.76%	34%	3.14%	1.528
	Dec-91	12/31/1991	4.07%	98.97	1.039%	1.042	4.24%	34%	2.80%	1.524
1992	Jan-92	1/31/1992	3.80%	99.04	0.970%	1.039	3.95%	34%	2.61%	1.521
	Feb-92	2/29/1992	3.84%	99.03	0.980%	1.040	3.99%	34%	2.63%	1.518
	Mar-92	3/31/1992	4.04%	98.98	1.032%	1.042	4.20%	34%	2.77%	1.514
	Apr-92	4/30/1992	3.75%	99.05	0.957%	1.039	3.89%	34%	2.57%	1.511
	May-92	5/31/1992	3.63%	99.08	0.926%	1.038	3.77%	34%	2.49%	1.508
	Jun-92	6/30/1992	3.66%	99.07	0.934%	1.038	3.80%	34%	2.51%	1.505
	Jul-92	7/31/1992	3.21%	99.19	0.818%	1.033	3.32%	34%	2.19%	1.502
	Aug-92	8/31/1992	3.13%	99.21	0.798%	1.032	3.24%	34%	2.14%	1.500
	Sep-92	9/30/1992	2.91%	99.26	0.741%	1.030	3.01%	34%	1.98%	1.497
	Oct-92	10/31/1992	2.86%	99.28	0.728%	1.030	2.95%	34%	1.95%	1.495
	Nov-92	11/30/1992	3.13%	99.21	0.798%	1.032	3.24%	34%	2.14%	1.492
	Dec-92	12/31/1992	3.22%	99.19	0.821%	1.033	3.33%	34%	2.20%	1.489
1993	Jan-93	1/31/1993	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.487
	Feb-93	2/28/1993	2.93%	99.26	0.746%	1.030	3.03%	35%	1.97%	1.484
	Mar-93	3/31/1993	2.95%	99.25	0.751%	1.030	3.05%	35%	1.98%	1.482
	Apr-93	4/30/1993	2.87%	99.27	0.731%	1.030	2.96%	35%	1.93%	1.480
	May-93	5/31/1993	2.96%	99.25	0.754%	1.031	3.06%	35%	1.99%	1.477
	Jun-93	6/30/1993	3.07%	99.22	0.782%	1.032	3.17%	35%	2.06%	1.475
	Jul-93	7/31/1993	3.04%	99.23	0.774%	1.031	3.14%	35%	2.04%	1.472
	Aug-93	8/31/1993	3.02%	99.24	0.769%	1.031	3.12%	35%	2.03%	1.470
	Sep-93	9/30/1993	2.95%	99.25	0.751%	1.030	3.05%	35%	1.98%	1.467
	Oct-93	10/31/1993	3.02%	99.24	0.769%	1.031	3.12%	35%	2.03%	1.465
	Nov-93	11/30/1993	3.10%	99.22	0.790%	1.032	3.21%	35%	2.08%	1.462
	Dec-93	12/31/1993	3.06%	99.23	0.780%	1.032	3.16%	35%	2.06%	1.460
1994	Jan-94	1/31/1994	2.98%	99.25	0.759%	1.031	3.08%	35%	2.00%	1.458
	Feb-94	2/28/1994	3.25%	99.18	0.828%	1.034	3.36%	35%	2.19%	1.455
	Mar-94	3/31/1994	3.50%	99.12	0.893%	1.036	3.63%	35%	2.36%	1.452
	Apr-94	4/30/1994	3.68%	99.07	0.939%	1.038	3.82%	35%	2.48%	1.449
	May-94	5/31/1994	4.14%	98.95	1.058%	1.043	4.31%	35%	2.80%	1.446
	Jun-94	6/30/1994	4.14%	98.95	1.058%	1.043	4.31%	35%	2.80%	1.442
	Jul-94	7/31/1994	4.33%	98.91	1.107%	1.045	4.51%	35%	2.93%	1.439
	Aug-94	8/31/1994	4.48%	98.87	1.145%	1.047	4.67%	35%	3.04%	1.435
	Sep-94	9/30/1994	4.62%	98.83	1.182%	1.048	4.82%	35%	3.14%	1.432
	Oct-94	10/31/1994	4.95%	98.75	1.267%	1.052	5.18%	35%	3.37%	1.428
	Nov-94	11/30/1994	5.29%	98.66	1.355%	1.055	5.55%	35%	3.61%	1.424
	Dec-94	12/31/1994	5.60%	98.58	1.436%	1.059	5.89%	35%	3.83%	1.419
1995	Jan-95	1/31/1995	5.71%	98.56	1.464%	1.060	6.00%	35%	3.90%	1.415
	Feb-95	2/28/1995	5.77%	98.54	1.480%	1.061	6.07%	35%	3.95%	1.410
	Mar-95	3/31/1995	5.73%	98.55	1.470%	1.060	6.03%	35%	3.92%	1.406
	Apr-95	4/30/1995	5.65%	98.57	1.449%	1.059	5.94%	35%	3.86%	1.401
	May-95	5/31/1995	5.67%	98.57	1.454%	1.060	5.96%	35%	3.87%	1.397
	Jun-95	6/30/1995	5.47%	98.62	1.402%	1.057	5.74%	35%	3.73%	1.392
	Jul-95	7/31/1995	5.42%	98.63	1.389%	1.057	5.69%	35%	3.70%	1.388
	Aug-95	8/31/1995	5.40%	98.64	1.384%	1.057	5.67%	35%	3.68%	1.384
	Sep-95	9/30/1995	5.28%	98.67	1.353%	1.055	5.54%	35%	3.60%	1.380
	Oct-95	10/31/1995	5.28%	98.67	1.353%	1.055	5.54%	35%	3.60%	1.376
	Nov-95	11/30/1995	5.36%	98.65	1.373%	1.056	5.62%	35%	3.66%	1.372
	Dec-95	12/31/1995	5.14%	98.70	1.316%	1.054	5.39%	35%	3.50%	1.368
1996	Jan-96	1/31/1996	5.00%	98.74	1.280%	1.052	5.23%	35%	3.40%	1.364
	Feb-96	2/29/1996	4.83%	98.78	1.236%	1.051	5.05%	35%	3.28%	1.360
	Mar-96	3/31/1996	4.96%	98.75	1.270%	1.052	5.19%	35%	3.37%	1.357
	Apr-96	4/30/1996	4.95%	98.75	1.267%	1.052	5.18%	35%	3.37%	1.353
	May-96	5/31/1996	5.02%	98.73	1.285%	1.053	5.26%	35%	3.42%	1.349
	Jun-96	6/30/1996	5.09%	98.71	1.303%	1.053	5.33%	35%	3.47%	1.345
	Jul-96	7/31/1996	5.15%	98.70	1.319%	1.054	5.40%	35%	3.51%	1.341

	Aug-96	8/31/1996	5.05%	98.72	1.293%	1.053	5.29%	35%	3.44%	1.338
	Sep-96	9/30/1996	5.09%	98.71	1.303%	1.053	5.33%	35%	3.47%	1.334
	Oct-96	10/31/1996	4.99%	98.74	1.277%	1.052	5.22%	35%	3.40%	1.330
	Nov-96	11/30/1996	5.03%	98.73	1.288%	1.053	5.27%	35%	3.42%	1.326
	Dec-96	12/31/1996	4.91%	98.76	1.257%	1.051	5.14%	35%	3.34%	1.323
1997	Jan-97	1/31/1997	5.03%	98.73	1.288%	1.053	5.27%	35%	3.42%	1.319
	Feb-97	2/28/1997	5.01%	98.73	1.283%	1.052	5.24%	35%	3.41%	1.315
	Mar-97	3/31/1997	5.14%	98.70	1.316%	1.054	5.39%	35%	3.50%	1.312
	Apr-97	4/30/1997	5.16%	98.70	1.322%	1.054	5.41%	35%	3.51%	1.308
	May-97	5/31/1997	5.05%	98.72	1.293%	1.053	5.29%	35%	3.44%	1.304
	Jun-97	6/30/1997	4.93%	98.75	1.262%	1.052	5.16%	35%	3.35%	1.301
	Jul-97	7/31/1997	5.05%	98.72	1.293%	1.053	5.29%	35%	3.44%	1.297
	Aug-97	8/31/1997	5.14%	98.70	1.316%	1.054	5.39%	35%	3.50%	1.293
	Sep-97	9/30/1997	4.95%	98.75	1.267%	1.052	5.18%	35%	3.37%	1.290
	Oct-97	10/31/1997	4.97%	98.74	1.272%	1.052	5.20%	35%	3.38%	1.286
	Nov-97	11/30/1997	5.14%	98.70	1.316%	1.054	5.39%	35%	3.50%	1.282
	Dec-97	12/31/1997	5.16%	98.70	1.322%	1.054	5.41%	35%	3.51%	1.279
1998	Jan-98	1/31/1998	5.04%	98.73	1.290%	1.053	5.28%	35%	3.43%	1.275
	Feb-98	2/28/1998	5.09%	98.71	1.303%	1.053	5.33%	35%	3.47%	1.272
	Mar-98	3/31/1998	5.03%	98.73	1.288%	1.053	5.27%	35%	3.42%	1.268
	Apr-98	4/30/1998	4.95%	98.75	1.267%	1.052	5.18%	35%	3.37%	1.264
	May-98	5/31/1998	5.00%	98.74	1.280%	1.052	5.23%	35%	3.40%	1.261
	Jun-98	6/30/1998	4.98%	98.74	1.275%	1.052	5.21%	35%	3.39%	1.257
	Jul-98	7/31/1998	4.96%	98.75	1.270%	1.052	5.19%	35%	3.37%	1.254
	Aug-98	8/31/1998	4.90%	98.76	1.254%	1.051	5.13%	35%	3.33%	1.251
	Sep-98	9/30/1998	4.61%	98.83	1.179%	1.048	4.81%	35%	3.13%	1.247
	Oct-98	10/31/1998	3.96%	99.00	1.011%	1.041	4.12%	35%	2.68%	1.245
	Nov-98	11/30/1998	4.41%	98.89	1.127%	1.046	4.60%	35%	2.99%	1.242
	Dec-98	12/31/1998	4.39%	98.89	1.122%	1.046	4.58%	35%	2.98%	1.239
1999	Jan-99	1/31/1999	4.34%	98.90	1.109%	1.045	4.52%	35%	2.94%	1.236
	Feb-99	2/28/1999	4.44%	98.88	1.135%	1.046	4.63%	35%	3.01%	1.232
	Mar-99	3/31/1999	4.44%	98.88	1.135%	1.046	4.63%	35%	3.01%	1.229
	Apr-99	4/30/1999	4.29%	98.92	1.096%	1.045	4.47%	35%	2.91%	1.227
	May-99	5/31/1999	4.50%	98.86	1.151%	1.047	4.70%	35%	3.05%	1.223
	Jun-99	6/30/1999	4.57%	98.84	1.169%	1.048	4.77%	35%	3.10%	1.220
	Jul-99	7/31/1999	4.55%	98.85	1.164%	1.047	4.75%	35%	3.09%	1.217
	Aug-99	8/31/1999	4.72%	98.81	1.208%	1.049	4.93%	35%	3.21%	1.214
	Sep-99	9/30/1999	4.68%	98.82	1.197%	1.049	4.89%	35%	3.18%	1.211
	Oct-99	10/31/1999	4.86%	98.77	1.244%	1.051	5.08%	35%	3.30%	1.208
	Nov-99	11/30/1999	5.07%	98.72	1.298%	1.053	5.31%	35%	3.45%	1.204
	Dec-99	12/31/1999	5.20%	98.69	1.332%	1.055	5.45%	35%	3.54%	1.201
2000	Jan-00	1/31/2000	5.32%	98.66	1.363%	1.056	5.58%	35%	3.63%	1.197
	Feb-00	2/29/2000	5.55%	98.60	1.423%	1.058	5.83%	35%	3.79%	1.193
	Mar-00	3/31/2000	5.69%	98.56	1.459%	1.060	5.98%	35%	3.89%	1.190
	Apr-00	4/30/2000	5.66%	98.57	1.451%	1.060	5.95%	35%	3.87%	1.186
	May-00	5/31/2000	5.79%	98.54	1.485%	1.061	6.09%	35%	3.96%	1.182
	Jun-00	6/30/2000	5.69%	98.56	1.459%	1.060	5.98%	35%	3.89%	1.178
	Jul-00	7/31/2000	5.96%	98.49	1.530%	1.063	6.28%	35%	4.08%	1.174
	Aug-00	8/31/2000	6.09%	98.46	1.563%	1.064	6.42%	35%	4.17%	1.170
	Sep-00	9/30/2000	6.00%	98.48	1.540%	1.063	6.32%	35%	4.11%	1.166
	Oct-00	10/31/2000	6.11%	98.46	1.569%	1.064	6.44%	35%	4.19%	1.163
	Nov-00	11/30/2000	6.17%	98.44	1.584%	1.065	6.51%	35%	4.23%	1.158
	Dec-00	12/31/2000	5.77%	98.54	1.480%	1.061	6.07%	35%	3.95%	1.155
2001	Jan-01	1/31/2001	5.15%	98.70	1.319%	1.054	5.40%	35%	3.51%	1.151
	Feb-01	2/28/2001	4.88%	98.77	1.249%	1.051	5.10%	35%	3.32%	1.148
	Mar-01	3/31/2001	4.42%	98.88	1.130%	1.046	4.61%	35%	3.00%	1.146
	Apr-01	4/30/2001	3.87%	99.02	0.988%	1.040	4.02%	35%	2.61%	1.143
	May-01	5/31/2001	3.62%	99.08	0.924%	1.038	3.76%	35%	2.44%	1.141
	Jun-01	6/30/2001	3.49%	99.12	0.890%	1.036	3.62%	35%	2.35%	1.139
	Jul-01	7/31/2001	3.51%	99.11	0.895%	1.036	3.64%	35%	2.37%	1.136
	Aug-01	8/31/2001	3.36%	99.15	0.857%	1.035	3.48%	35%	2.26%	1.134
	Sep-01	9/30/2001	2.64%	99.33	0.672%	1.027	2.72%	35%	1.77%	1.133
	Oct-01	10/31/2001	2.16%	99.45	0.549%	1.022	2.22%	35%	1.44%	1.131
	Nov-01	11/30/2001	1.87%	99.53	0.475%	1.019	1.92%	35%	1.25%	1.130
	Dec-01	12/31/2001	1.69%	99.57	0.429%	1.017	1.73%	35%	1.13%	1.129
2002	Jan-02	1/31/2002	1.65%	99.58	0.419%	1.017	1.69%	35%	1.10%	1.128
	Feb-02	2/28/2002	1.73%	99.56	0.439%	1.018	1.77%	35%	1.15%	1.127



2003	Mar-02	3/31/2002	1.79%	99.55	0.455%	1.018	1.84%	35%	1.19%	1.126
	Apr-02	4/30/2002	1.72%	99.57	0.437%	1.018	1.76%	35%	1.15%	1.125
	May-02	5/31/2002	1.73%	99.56	0.439%	1.018	1.77%	35%	1.15%	1.124
	Jun-02	6/30/2002	1.70%	99.57	0.432%	1.017	1.74%	35%	1.13%	1.123
	Jul-02	7/31/2002	1.68%	99.58	0.426%	1.017	1.72%	35%	1.12%	1.122
	Aug-02	8/31/2002	1.62%	99.59	0.411%	1.017	1.66%	35%	1.08%	1.121
	Sep-02	9/30/2002	1.63%	99.59	0.414%	1.017	1.67%	35%	1.09%	1.120
	Oct-02	10/31/2002	1.58%	99.60	0.401%	1.016	1.62%	35%	1.05%	1.119
	Nov-02	11/30/2002	1.23%	99.69	0.312%	1.013	1.26%	35%	0.82%	1.118
	Dec-02	12/31/2002	1.19%	99.70	0.302%	1.012	1.22%	35%	0.79%	1.117
	Jan-03	1/31/2003	1.17%	99.70	0.297%	1.012	1.20%	35%	0.78%	1.116
	Feb-03	2/28/2003	1.17%	99.70	0.297%	1.012	1.20%	35%	0.78%	1.116
2004	Mar-03	3/31/2003	1.13%	99.71	0.286%	1.012	1.15%	35%	0.75%	1.115
	Apr-03	4/30/2003	1.13%	99.71	0.286%	1.012	1.15%	35%	0.75%	1.114
	May-03	5/31/2003	1.07%	99.73	0.271%	1.011	1.09%	35%	0.71%	1.114
	Jun-03	6/30/2003	0.92%	99.77	0.233%	1.009	0.94%	35%	0.61%	1.113
	Jul-03	7/31/2003	0.90%	99.77	0.228%	1.009	0.92%	35%	0.60%	1.112
	Aug-03	8/31/2003	0.95%	99.76	0.241%	1.010	0.97%	35%	0.63%	1.112
	Sep-03	9/30/2003	0.94%	99.76	0.238%	1.010	0.96%	35%	0.62%	1.111
	Oct-03	10/31/2003	0.92%	99.77	0.233%	1.009	0.94%	35%	0.61%	1.111
	Nov-03	11/30/2003	0.93%	99.76	0.236%	1.009	0.95%	35%	0.62%	1.110
	Dec-03	12/31/2003	0.90%	99.77	0.228%	1.009	0.92%	35%	0.60%	1.110
	Jan-04	1/31/2004	0.88%	99.78	0.223%	1.009	0.90%	35%	0.58%	1.109
	Feb-04	2/29/2004	0.93%	99.76	0.236%	1.009	0.95%	35%	0.62%	1.109
2005	Mar-04	3/31/2004	0.94%	99.76	0.238%	1.010	0.96%	35%	0.62%	1.108
	Apr-04	4/30/2004	0.94%	99.76	0.238%	1.010	0.96%	35%	0.62%	1.107
	May-04	5/31/2004	1.02%	99.74	0.258%	1.010	1.04%	35%	0.68%	1.107
	Jun-04	6/30/2004	1.27%	99.68	0.322%	1.013	1.30%	35%	0.84%	1.106
	Jul-04	7/31/2004	1.33%	99.66	0.337%	1.014	1.36%	35%	0.88%	1.105
	Aug-04	8/31/2004	1.48%	99.63	0.376%	1.015	1.51%	35%	0.98%	1.104
	Sep-04	9/30/2004	1.65%	99.58	0.419%	1.017	1.69%	35%	1.10%	1.103
	Oct-04	10/31/2004	1.76%	99.56	0.447%	1.018	1.80%	35%	1.17%	1.102
	Nov-04	11/30/2004	2.07%	99.48	0.526%	1.021	2.13%	35%	1.38%	1.101
	Dec-04	12/31/2004	2.19%	99.45	0.557%	1.023	2.25%	35%	1.46%	1.100
	Jan-05	1/31/2005	2.33%	99.41	0.592%	1.024	2.40%	35%	1.56%	1.098
	Feb-05	2/28/2005	2.54%	99.36	0.646%	1.026	2.62%	35%	1.70%	1.097
2006	Mar-05	3/31/2005	2.74%	99.31	0.697%	1.028	2.83%	35%	1.84%	1.095
	Apr-05	4/30/2005	2.78%	99.30	0.708%	1.029	2.87%	35%	1.86%	1.093
	May-05	5/31/2005	2.84%	99.28	0.723%	1.029	2.93%	35%	1.91%	1.092
	Jun-05	6/30/2005	2.97%	99.25	0.756%	1.031	3.07%	35%	1.99%	1.090
	Jul-05	7/31/2005	3.22%	99.19	0.821%	1.033	3.33%	35%	2.17%	1.088
	Aug-05	8/31/2005	3.44%	99.13	0.877%	1.036	3.57%	35%	2.32%	1.086
	Sep-05	9/30/2005	3.42%	99.14	0.872%	1.035	3.54%	35%	2.30%	1.084
	Oct-05	10/31/2005	3.71%	99.06	0.947%	1.039	3.85%	35%	2.50%	1.081
	Nov-05	11/30/2005	3.88%	99.02	0.990%	1.040	4.03%	35%	2.62%	1.079
	Dec-05	12/31/2005	3.89%	99.02	0.993%	1.040	4.04%	35%	2.63%	1.077
	Jan-06	1/31/2006	4.24%	98.93	1.083%	1.044	4.42%	35%	2.87%	1.074
	Feb-06	2/28/2006	4.43%	98.88	1.132%	1.046	4.62%	35%	3.00%	1.072
	Mar-06	3/31/2006	4.51%	98.86	1.153%	1.047	4.71%	35%	3.06%	1.069
2007	Apr-06	4/30/2006	4.60%	98.84	1.176%	1.048	4.80%	35%	3.12%	1.066
	May-06	5/31/2006	4.72%	98.81	1.208%	1.049	4.93%	35%	3.21%	1.063
	Jun-06	6/30/2006	4.79%	98.79	1.226%	1.050	5.01%	35%	3.25%	1.061
	Jul-06	7/31/2006	4.95%	98.75	1.267%	1.052	5.18%	35%	3.37%	1.058
	Aug-06	8/31/2006	4.96%	98.75	1.270%	1.052	5.19%	35%	3.37%	1.055
	Sep-06	9/30/2006	4.81%	98.78	1.231%	1.050	5.03%	35%	3.27%	1.052
	Oct-06	10/31/2006	4.92%	98.76	1.259%	1.051	5.15%	35%	3.35%	1.049
	Nov-06	11/30/2006	4.94%	98.75	1.265%	1.052	5.17%	35%	3.36%	1.046
	Dec-06	12/31/2006	4.85%	98.77	1.241%	1.051	5.07%	35%	3.30%	1.043
	Jan-07	1/31/2007	4.98%	98.74	1.275%	1.052	5.21%	35%	3.39%	1.040
	Feb-07	2/28/2007	5.03%	98.73	1.288%	1.053	5.27%	35%	3.42%	1.037
	Mar-07	3/31/2007	4.94%	98.75	1.265%	1.052	5.17%	35%	3.36%	1.035
	Apr-07	4/30/2007	4.87%	98.77	1.246%	1.051	5.09%	35%	3.31%	1.032
	May-07	5/31/2007	4.73%	98.80	1.210%	1.049	4.94%	35%	3.21%	1.029
	Jun-07	6/30/2007	4.61%	98.83	1.179%	1.048	4.81%	35%	3.13%	1.026
	Jul-07	7/31/2007	4.82%	98.78	1.233%	1.050	5.04%	35%	3.28%	1.024
	Aug-07	8/31/2007	4.20%	98.94	1.073%	1.044	4.37%	35%	2.84%	1.021
	Sep-07	9/30/2007	3.89%	99.02	0.993%	1.040	4.04%	35%	2.63%	1.019

	Oct-07	10/31/2007	3.90%	99.01	0.996%	1.041	4.05%	35%	2.63%	1.016919
	Nov-07	11/30/2007	3.27%	99.17	0.833%	1.034	3.39%	35%	2.20%	1.015076
	Dec-07	12/31/2007	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.013390
2008	Jan-08	1/31/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.011707
	Feb-08	2/29/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.010026
	Mar-08	3/31/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.008348
	Apr-08	4/30/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.006673
	May-08	5/31/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.005000
	Jun-08	6/30/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.003
	Jul-08	7/31/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.002
	Aug-08	8/31/2008	3.00%	99.24	0.764%	1.031	3.10%	35%	2.02%	1.000
	Sep-08	9/30/2008								0.995
	Oct-08	10/31/2008								0.989
	Nov-08	11/30/2008								0.984
	Dec-08	12/31/2008								0.979
2009	Jan-09	1/31/2009								0.974
	Feb-09	2/28/2009								0.968
	Mar-09	3/31/2009								0.963
	Apr-09	4/30/2009								0.958
	May-09	5/31/2009								0.953
	Jun-09	6/30/2009								0.948
	Jul-09	7/31/2009								0.943
	Aug-09	8/31/2009								0.938
	Sep-09	9/30/2009								0.933
	Oct-09	10/31/2009								0.928
	Nov-09	11/30/2009								0.923
	Dec-09	12/31/2009								0.918
	Jan-41									

NOTES:
[http://www.federalreserve.gov/releases/h15/data/Monthly/H15\\_TB\\_IV](http://www.federalreserve.gov/releases/h15/data/Monthly/H15_TB_IV)

- [1] Source: Bank Discount Rates are from the Federal Reserve Statistical
- [2] Pre-Tax Annualized Yields are calculated based on the Bank Discount Rates, Column [D].  
 Example: Using the June 1993 3-month T-Bill rate (Bank Discount Rate) of 3.07%:  
 (a)  $100 - (91/360) * (.0307 * 100)$  99.22 (Price per \$100)  
 (b)  $(100 - (a)) / (a)$  0.78% (Percent profit)  
 (c)  $\{[1 + (b)]^{(365/91)}\} - 1$  3.17% (Pre-Tax Annualized yield)
- [3] = [H] \* (1 - Tax Rate). Federal Corporate Marginal Tax Rates:
- |           |     |
|-----------|-----|
| 1987-1992 | 34% |
| 1993-     | 35% |

Source: "BEN User's Manual", Office of Enforcement, United States Environmental Protection Agency, Revised December 1993, Updated August 1997.

- [4] Risk Free Interest Factor at Date of Alleged Non-Compliance.



Table 1.F  
Monthly Inflation Index

Year	Month	Interpolated Monthly Index
1991	Jan-91	357.91
1991	Feb-91	358.21
1991	Mar-91	358.52
1991	Apr-91	358.83
1991	May-91	359.14
1991	Jun-91	359.45
1991	Jul-91	359.75
1991	Aug-91	360.06
1991	Sep-91	360.37
1991	Oct-91	360.68
1991	Nov-91	360.99
1991	Dec-91	361.30
1992	Jan-92	361.04
1992	Feb-92	360.78
1992	Mar-92	360.52
1992	Apr-92	360.26
1992	May-92	360.01
1992	Jun-92	359.75
1992	Jul-92	359.49
1992	Aug-92	359.23
1992	Sep-92	358.97
1992	Oct-92	358.71
1992	Nov-92	358.46
1992	Dec-92	358.20
1993	Jan-93	358.28
1993	Feb-93	358.37
1993	Mar-93	358.45
1993	Apr-93	358.53
1993	May-93	358.62
1993	Jun-93	358.70
1993	Jul-93	358.78
1993	Aug-93	358.87
1993	Sep-93	358.95
1993	Oct-93	359.03
1993	Nov-93	359.12
1993	Dec-93	359.20
1994	Jan-94	359.93
1994	Feb-94	360.67
1994	Mar-94	361.40
1994	Apr-94	362.14
1994	May-94	362.88
1994	Jun-94	363.62
1994	Jul-94	364.37
1994	Aug-94	365.11
1994	Sep-94	365.85
1994	Oct-94	366.60
1994	Nov-94	367.35
1994	Dec-94	368.10
1995	Jan-95	369.17
1995	Feb-95	370.24
1995	Mar-95	371.31
1995	Apr-95	372.38
1995	May-95	373.46
1995	Jun-95	374.54
1995	Jul-95	375.63
1995	Aug-95	376.72
1995	Sep-95	377.81
1995	Oct-95	378.90
1995	Nov-95	380.00
1995	Dec-95	381.10
1996	Jan-96	381.15
1996	Feb-96	381.20
1996	Mar-96	381.25
1996	Apr-96	381.30
1996	May-96	381.35
1996	Jun-96	381.40
1996	Jul-96	381.45
1996	Aug-96	381.50
1996	Sep-96	381.55

Year	Month	Interpolated Monthly Index
1996	Oct-96	381.60
1996	Nov-96	381.65
1996	Dec-96	381.70
1997	Jan-97	382.10
1997	Feb-97	382.50
1997	Mar-97	382.89
1997	Apr-97	383.29
1997	May-97	383.69
1997	Jun-97	384.09
1997	Jul-97	384.49
1997	Aug-97	384.89
1997	Sep-97	385.29
1997	Oct-97	385.70
1997	Nov-97	386.10
1997	Dec-97	386.50
1998	Jan-98	386.75
1998	Feb-98	387.00
1998	Mar-98	387.25
1998	Apr-98	387.50
1998	May-98	387.75
1998	Jun-98	388.00
1998	Jul-98	388.25
1998	Aug-98	388.50
1998	Sep-98	388.75
1998	Oct-98	389.00
1998	Nov-98	389.25
1998	Dec-98	389.50
1999	Jan-99	389.59
1999	Feb-99	389.68
1999	Mar-99	389.77
1999	Apr-99	389.87
1999	May-99	389.96
1999	Jun-99	390.05
1999	Jul-99	390.14
1999	Aug-99	390.23
1999	Sep-99	390.32
1999	Oct-99	390.42
1999	Nov-99	390.51
1999	Dec-99	390.60
2000	Jan-00	390.89
2000	Feb-00	391.18
2000	Mar-00	391.47
2000	Apr-00	391.76
2000	May-00	392.05
2000	Jun-00	392.35
2000	Jul-00	392.64
2000	Aug-00	392.93
2000	Sep-00	393.22
2000	Oct-00	393.51
2000	Nov-00	393.81
2000	Dec-00	394.10
2001	Jan-01	394.12
2001	Feb-01	394.13
2001	Mar-01	394.15
2001	Apr-01	394.17
2001	May-01	394.18
2001	Jun-01	394.20
2001	Jul-01	394.22
2001	Aug-01	394.23
2001	Sep-01	394.25
2001	Oct-01	394.27
2001	Nov-01	394.28
2001	Dec-01	394.30
2002	Jan-02	394.41
2002	Feb-02	394.52
2002	Mar-02	394.62
2002	Apr-02	394.73
2002	May-02	394.84
2002	Jun-02	394.95
2002	Jul-02	395.06
2002	Aug-02	395.17
2002	Sep-02	395.27
2002	Oct-02	395.38

Year	Month	Interpolated Monthly Index
2002	Nov-02	395.49
2002	Dec-02	395.60
2003	Jan-03	396.13
2003	Feb-03	396.66
2003	Mar-03	397.19
2003	Apr-03	397.72
2003	May-03	398.25
2003	Jun-03	398.79
2003	Jul-03	399.32
2003	Aug-03	399.86
2003	Sep-03	400.39
2003	Oct-03	400.93
2003	Nov-03	401.46
2003	Dec-03	402.00
2004	Jan-04	405.21
2004	Feb-04	408.44
2004	Mar-04	411.69
2004	Apr-04	414.98
2004	May-04	418.29
2004	Jun-04	421.62
2004	Jul-04	424.98
2004	Aug-04	428.37
2004	Sep-04	431.79
2004	Oct-04	435.23
2004	Nov-04	438.70
2004	Dec-04	442.20
2005	Jan-05	444.31
2005	Feb-05	446.43
2005	Mar-05	448.56
2005	Apr-05	450.70
2005	May-05	452.85
2005	Jun-05	455.01
2005	Jul-05	457.19
2005	Aug-05	459.37
2005	Sep-05	461.56
2005	Oct-05	463.76
2005	Nov-05	465.98
2005	Dec-05	468.20
2006	Jan-06	470.74
2006	Feb-06	473.29
2006	Mar-06	475.86
2006	Apr-06	478.44
2006	May-06	481.04
2006	Jun-06	483.65
2006	Jul-06	486.27
2006	Aug-06	488.91
2006	Sep-06	491.56
2006	Oct-06	494.22
2006	Nov-06	496.90
2006	Dec-06	499.60
2007	Jan-07	500.42
2007	Feb-07	501.24
2007	Mar-07	502.07
2007	Apr-07	502.89
2007	May-07	503.72
2007	Jun-07	504.54
2007	Jul-07	505.37
2007	Aug-07	506.20
2007	Sep-07	507.03
2007	Oct-07	507.87
2007	Nov-07	508.70
2007	Dec-07	509.54
2008	Jan-08	510.37
2008	Feb-08	511.21
2008	Mar-08	512.05
2008	Apr-08	512.89
2008	May-08	513.73
2008	Jun-08	514.58
2008	Jul-08	515.42
2008	Aug-08	516.27
2008	Sep-08	517.12
2008	Oct-08	517.97
2008	Nov-08	518.82

Year	Month	Interpolated Monthly Index
2008	Dec-08	519.67
2009	Jan-09	520.52
2009	Feb-09	521.38
2009	Mar-09	522.24
2009	Apr-09	523.09
2009	May-09	523.95
2009	Jun-09	524.81
2009	Jul-09	525.68
2009	Aug-09	526.54
2009	Sep-09	527.40
2009	Oct-09	528.27
2009	Nov-09	529.14
2009	Dec-09	530.01
2010	Jan-10	530.88
2010	Feb-10	531.75
2010	Mar-10	532.62
2010	Apr-10	533.50
2010	May-10	534.37
2010	Jun-10	535.25
2010	Jul-10	536.13
2010	Aug-10	537.01
2010	Sep-10	537.89
2010	Oct-10	538.78
2010	Nov-10	539.66
2010	Dec-10	540.55
2011	Jan-11	541.44
2011	Feb-11	542.32
2011	Mar-11	543.22
2011	Apr-11	544.11
2011	May-11	545.00
2011	Jun-11	545.90
2011	Jul-11	546.79
2011	Aug-11	547.69
2011	Sep-11	548.59
2011	Oct-11	549.49
2011	Nov-11	550.39
2011	Dec-11	551.30
2012	Jan-12	552.20
2012	Feb-12	553.11
2012	Mar-12	554.02
2012	Apr-12	554.93
2012	May-12	555.84
2012	Jun-12	556.75
2012	Jul-12	557.67
2012	Aug-12	558.58
2012	Sep-12	559.50
2012	Oct-12	560.42
2012	Nov-12	561.34
2012	Dec-12	562.26
2013	Jan-13	563.19
2013	Feb-13	564.11
2013	Mar-13	565.04
2013	Apr-13	565.97
2013	May-13	566.90
2013	Jun-13	567.83
2013	Jul-13	568.76
2013	Aug-13	569.69
2013	Sep-13	570.63
2013	Oct-13	571.57
2013	Nov-13	572.51
2013	Dec-13	573.45
2014	Jan-14	574.39
2014	Feb-14	575.33
2014	Mar-14	576.28
2014	Apr-14	577.22
2014	May-14	578.17
2014	Jun-14	579.12
2014	Jul-14	580.07
2014	Aug-14	581.02
2014	Sep-14	581.98
2014	Oct-14	582.93
2014	Nov-14	583.89
2014	Dec-14	584.85

Year	Month	Interpolated Monthly Index
2015	Jan-15	585.81
2015	Feb-15	586.77
2015	Mar-15	587.74
2015	Apr-15	588.70
2015	May-15	589.67
2015	Jun-15	590.64
2015	Jul-15	591.61
2015	Aug-15	592.58
2015	Sep-15	593.55
2015	Oct-15	594.53
2015	Nov-15	595.51
2015	Dec-15	596.48
2016	Jan-16	597.46
2016	Feb-16	598.44
2016	Mar-16	599.43
2016	Apr-16	600.41
2016	May-16	601.40
2016	Jun-16	602.39
2016	Jul-16	603.38
2016	Aug-16	604.37
2016	Sep-16	605.36
2016	Oct-16	606.35
2016	Nov-16	607.35
2016	Dec-16	608.35
2017	Jan-17	609.35
2017	Feb-17	610.35
2017	Mar-17	611.35
2017	Apr-17	612.35
2017	May-17	613.36
2017	Jun-17	614.37
2017	Jul-17	615.38
2017	Aug-17	616.39
2017	Sep-17	617.40
2017	Oct-17	618.41
2017	Nov-17	619.43
2017	Dec-17	620.45
2018	Jan-18	621.47
2018	Feb-18	622.49
2018	Mar-18	623.51
2018	Apr-18	624.53
2018	May-18	625.56
2018	Jun-18	626.59
2018	Jul-18	627.61
2018	Aug-18	628.65
2018	Sep-18	629.68
2018	Oct-18	630.71
2018	Nov-18	631.75
2018	Dec-18	632.79
2019	Jan-19	633.83
2019	Feb-19	634.87
2019	Mar-19	635.91
2019	Apr-19	636.95
2019	May-19	638.00
2019	Jun-19	639.05
2019	Jul-19	640.10
2019	Aug-19	641.15
2019	Sep-19	642.20
2019	Oct-19	643.26
2019	Nov-19	644.31
2019	Dec-19	645.37
2020	Jan-20	

**Table 1.G**  
**Inflation Factors Based on the Chemical Engineering Plant Cost Index**  
**Projections Based on Historical Relationship between CPI and PCI**  
**And CPI Projections from 2007 Economic Report of the President**

Year	Index	Month-to-Month Growth Factor
1990	357.60	
1991	361.30	1.00086
1992	358.20	0.99928
1993	359.20	1.00023
1994	368.10	1.00204
1995	381.10	1.00290
1996	381.70	1.00013
1997	386.50	1.00104
1998	389.50	1.00064
1999	390.60	1.00024
2000	394.10	1.00074
2001	394.30	1.00004
2002	395.60	1.00027
2003	402.00	1.00134
2004	442.20	1.00797
2005	468.20	1.00477
2006	499.60	1.00542
2007	509.54	1.00164
2008	519.67	1.00164
2009	530.01	1.00164
2010	540.55	1.00164
2011	551.30	1.00164
2012	562.26	1.00164
2013	573.45	1.00164
2014	584.85	1.00164
2015	596.48	1.00164
2016	608.35	1.00164
2017	620.45	1.00164
2018	632.79	1.00164
2019	645.37	1.00164
2020	658.21	1.00164
2021	671.30	1.00164

Source:  
Chemical Engineering News Plant Cost Index

**Table 1.H**  
**Consumer Price Index vs. Plant Cost Index**  
**1990 - 2006**

	Consumer Price Index		Plant Cost Index	
	Index Value	Inflation Rate	Index Value	Inflation Rate
1990	133.8		357.6	
1991	137.9	3.1%	361.3	1.0%
1992	141.9	2.9%	358.2	-0.9%
1993	145.8	2.7%	359.2	0.3%
1994	149.7	2.7%	368.1	2.5%
1995	153.5	2.5%	381.1	3.5%
1996	158.6	3.3%	381.7	0.2%
1997	161.3	1.7%	386.5	1.3%
1998	163.9	1.6%	389.5	0.8%
1999	168.3	2.7%	390.6	0.3%
2000	174.0	3.4%	394.1	0.9%
2001	176.7	1.6%	394.3	0.1%
2002	180.9	2.4%	395.6	0.3%
2003	184.3	1.9%	402.0	1.6%
2004	190.3	3.3%	442.2	10.0%
2005	196.8	3.4%	468.2	5.9%
2006	201.8	2.5%	499.6	6.7%
<b>Ave. Annual Rate:</b>		<b>2.6%</b>		<b>2.1%</b>
Projections [x]				
2007		2.6%		
2008		2.6%		
2009		2.5%		
2010		2.4%		
2011		2.3%		
2012		2.3%		
			<b>PCI - CPI Factor</b>	
<b>Ave. Annual Proj:</b>		<b>2.5%</b>	<b>0.8</b>	<b>2.0%</b>

**Sources:**

Consumer Price Index: U.S. Department of Labor, Bureau of Labor Statistics, U.S. City Average, All Items  
 (ftp://ftp.bls.gov/pub/special.requests/cpi/cpiat.txt)

Plant Cost Index: Chemical Engineering, Economic Indicators  
 (www.che.com)

**Table 1.I**  
**Calculation of Discount Rate for**  
**Post-Penalty Payment Date Cash Flows**

Asset Beta	0.25 [1]
Long-Horizon Equity Risk Premium	7.10% [2]
20 Year Treasury Rate	4.83% [3]
Discount Rate	6.61% [4]

Notes:

- [1] Asset beta for cost streams.
- [2] Stocks, Bonds, Bills, and Inflation (Valuation Edition) 2007 Yearbook. Ibbotson Associates.
- [3] Federal Reserve Rate of Interest in Money and Capital Markets,  
Constant Maturity Twenty-Year, Not Seasonally Adjusted  
(<http://www.federalreserve.gov/releases/h15/data/m/tcm20y.txt>)  
Oct-07
- [4] = [1] x [2] + [3]